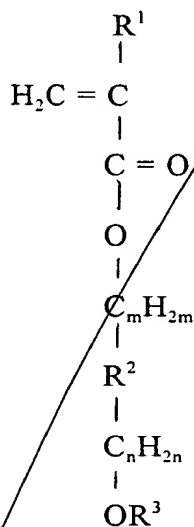


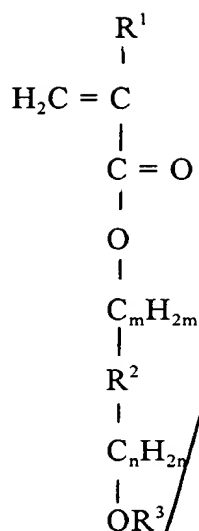
WHAT IS CLAIMED IS:

1. A chemically amplified resist comprising
photoacid generator contained at 0.2 part to 25 parts by weight, and
polymer contained at 75 parts to 99.8 parts by weight and copolymer-
ized between compound and monomer expressed by the general formula:



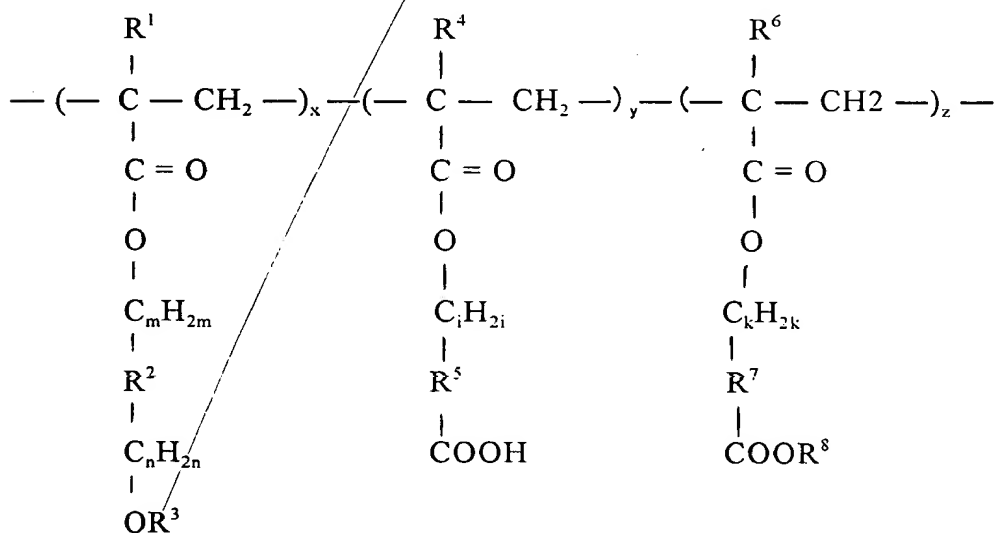
wherein R^1 represents a hydrogen atom or a methyl group, R^2 represents a bridged hydrocarbon group having the carbon number between 7 and 22, m equals 0 or 1, n equals 0 or 1 and R^3 represents a hydrogen atom, a methyl group or an acetyl group.

2. A chemically amplified resist comprising
photoacid generator contained at 0.2 part to 25 parts by weight,
cross linking agent activated in the presence of acid and contained at 1
part to 40 parts, and
polymer contained at 50 parts to 98.8 parts by weight and copolymer-
ized between compound and monomer expressed by the general formula:



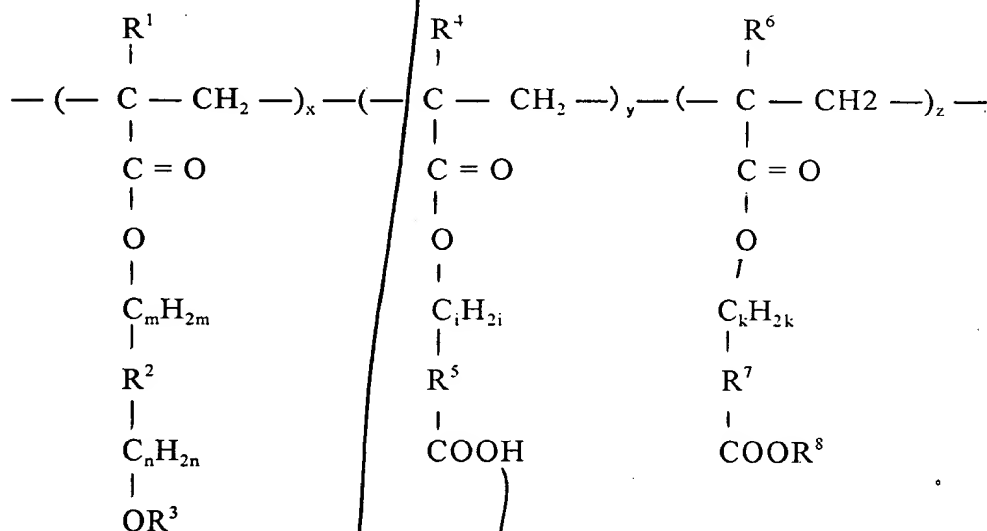
wherein R^1 represents a hydrogen atom or a methyl group, R^2 represents a bridged hydrocarbon group having the carbon number between 7 and 22, m equals 0 or 1, n equals 0 or 1 and R^3 represents a hydrogen atom, a methyl group or an acetyl group.

3. The chemically amplified resist as set forth in claim 1, in which said polymer has a weight average molecular weight ranging between 1,000 and 50,000, and is expressed by the general formula:



wherein R^1 , R^4 and R^6 represent a hydrogen atom or a methyl group, R^2 , R^5 and R^7 represent a bridged hydrocarbon group having the carbon number from 7 to 22, R^3 represents a hydrogen atom, a methyl group or an acetyl group, R^8 represents a group decomposed by acid, m equals 0 or 1, n equals 0 or 1, i equals 0 or 1, k equals zero or 1, $x + y + z = 1$, x ranges from 0.05 to 0.75, y ranges from zero to 0.8 and z ranges from zero to 0.6.

4. The chemically amplified resist as set forth in claim 2, in which said polymer has a weight average molecular weight ranging between 1,000 and 50,000, and is expressed by the general formula:



wherein R^1 , R^4 and R^6 represent a hydrogen atom or a methyl group, R^2 , R^5 and R^7 represent a bridged hydrocarbon group having the carbon number from 7 to 22, R^3 represents a hydrogen atom, a methyl group or an acetyl group, R^8 represents a group decomposed by acid, m equals 0 or 1, n equals 0 or 1, i equals 0 or 1, k equals zero or 1, $x + y + z = 1$, x ranges from 0.05 to 0.75, y ranges from zero to 0.8 and z ranges from zero to 0.6.

5. The chemically amplified resist as set forth in claim 1, in which said chemically amplified resist is dissolved in a developing solution after selective photo radiation so as to form a positive resist pattern.

3x E The chemically amplified resist as set forth in claim ²¹2, in which said chemically amplified resist is dissolved in a developing solution after selective photo radiation so as to form a positive resist pattern.

7. The chemically amplified resist as set forth in claim 2, in which said chemically amplified resist is dissolved in a developing solution after selective photo radiation so as to form a negative resist pattern.

8. The chemically amplified resist as set forth in claim 4, in which said chemically amplified resist is dissolved in a developing solution after selective photo radiation so as to form a negative resist pattern.

9. A process for forming a resist mask, comprising the steps of:

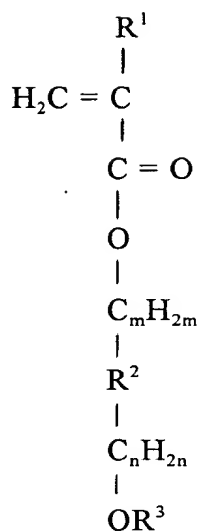
a) preparing a solid structure;

b) spreading chemically amplified resist over a surface of said solid structure so as to form a chemically amplified resist layer thereon,

said chemically amplified resist comprising

photoacid generator contained at 0.2 part to 25 parts by weight, and

polymer contained at 75 parts to 99.8 parts by weight and copolymerized between compound and monomer expressed by the general formula:

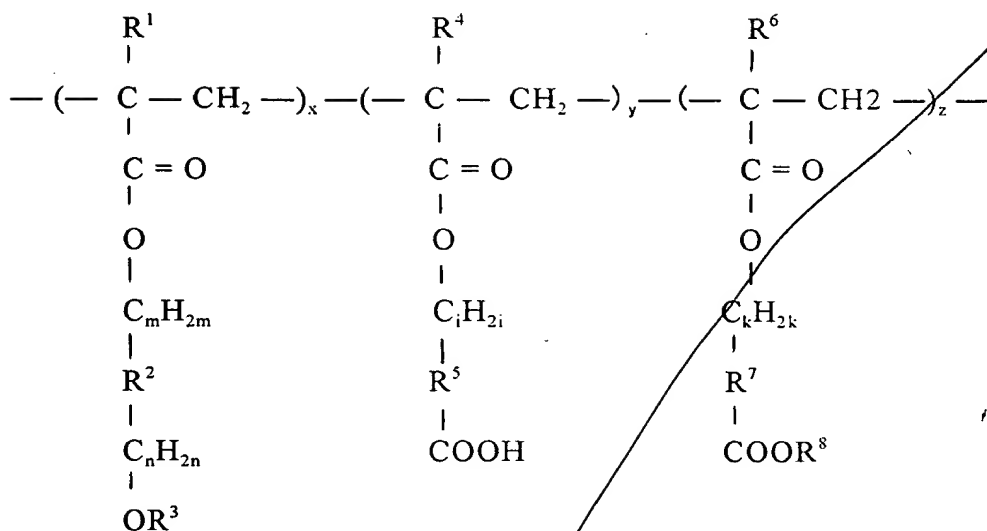


wherein R^1 represents a hydrogen atom or a methyl group, R^2 represents a bridged hydrocarbon group having the carbon number between 7 and 22, m equals 0 or 1, n equals 0 or 1 and R^3 represents a hydrogen atom, a methyl group or an acetyl group;

c) radiating light through a mask onto said chemically amplified resist layer so as to form a latent image therein; and

d) developing said latent image so as to form a resist mask from said chemically amplified resist layer.

10. The process as set forth in claim 9, in which said polymer has a weight average molecular weight ranging between 1,000 and 50,000, and is expressed by the general formula:



wherein R^1 , R^4 and R^6 represent a hydrogen atom or a methyl group, R^2 , R^5 and R^7 represent a bridged hydrocarbon group having the carbon number from 7 to 22, R^3 represents a hydrogen atom, a methyl group or an acetyl group, R^8 represents a group decomposed by acid, m equals 0 or 1, n equals 0 or 1, i equals 0 or 1, k equals zero or 1, $x + y + z = 1$, x ranges from 0.05 to 0.75, y ranges from zero to 0.8 and z ranges from zero to 0.6.

11. The process as set forth in claim 9, in which said light has the wavelength equal to or less than 248 nanometers.
12. The process as set forth in claim 11, in which said light is radiated from an ArF excimer laser source.
13. The process as set forth in claim 9, in which alkaline developing solution is used in said step d).
14. The process as set forth in claim 9, further comprising the steps of heating said chemically amplified resist spread over said surface of said solid-state structure for forming a chemically amplified resist between said step b)

and said step c), and heating said chemically amplified resist layer between said step c) and said step d).

15. A process for forming a resist mask, comprising the steps of:

a) preparing a solid structure;

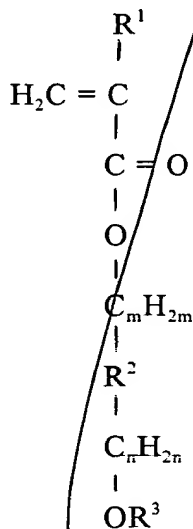
b) spreading chemically amplified resist over a surface of said solid structure so as to form a chemically amplified resist layer thereon,

said chemically amplified resist comprising

photoacid generator contained at 0.2 part to 25 parts by weight,

cross linking agent activated in the presence of acid and contained at 1 part to 40 parts by weight and

polymer contained at 50 parts to 98.8 parts by weight and copolymerized between compound and monomer expressed by the general formula:



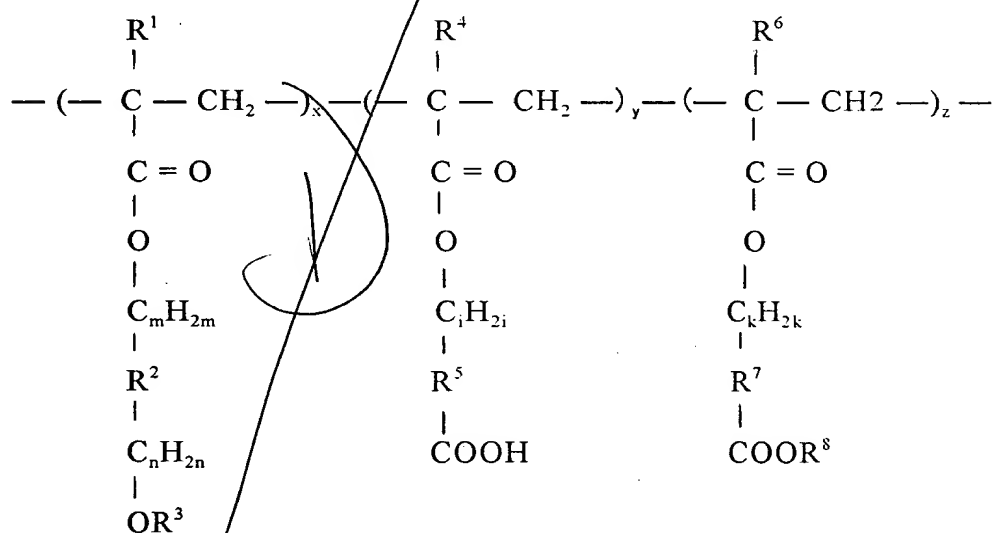
wherein R^1 represents a hydrogen atom or a methyl group, R^2 represents a bridged hydrocarbon group having the carbon number between 7 and 22, m

equals 0 or 1, n equals 0 or 1 and R³ represents a hydrogen atom, a methyl group or an acetyl group;

c) radiating light through a mask onto said chemically amplified resist layer so as to form a latent image therein; and

d) developing said latent image so as to form a resist mask from said chemically amplified resist layer.

16. The process as set forth in claim 15, in which said polymer has a weight average molecular weight ranging between 1,000 and 50,000, and is expressed by the general formula:



wherein R¹, R⁴ and R⁶ represent a hydrogen atom or a methyl group, R², R⁵ and R⁷ represent a bridged hydrocarbon group having the carbon number from 7 to 22, R³ represents a hydrogen atom, a methyl group or an acetyl group, R⁸ represents a group decomposed by acid, m equals 0 or 1, n equals 0 or 1, i equals 0 or 1, k equals zero or 1, x + y + z = 1, x ranges from 0.05 to 0.75, y ranges from zero to 0.8 and z ranges from zero to 0.6.

